

I claim:

1. Apparatus for allowing only an authorized person to activate an instrumentality capable of performing action desired by a person who is the user of said apparatus, said apparatus comprising:

5 a Personalized Authenticated Controller means (hereafter "PAC"), communicating with said instrumentality, for authenticating identity of said user as said authorized person and for allowing activation of said instrumentality only by said 10 authorized person for performance of said action, said PAC comprising:

a user information input means, for allowing input of information into said PAC;

15 a data storage means, for storing data received by said PAC; and

a PAC microprocessor means, communicating internally with all PAC components, for transferring and formatting data, said PAC microprocessor means further comprising an authorized person identification means, communicating with said data storage means, 20 for continually determining whether said user is said authorized person, through analysis of the most recently received data identifying said user and through comparison of same with reference data identifying said authorized person; and for providing for output from said PAC, of an authorized person identity 25 authentication signal, if and only if said user is said authorized person;

a communication means, for allowing communication between said PAC and said instrumentality; and

a portion of said instrumentality, comprising:

an authorized person recognition means, communicating with said PAC, for allowing said instrumentality to carry out said action sought by said user only upon receipt by said authorized person recognition means, of said authorized person identity authentication signal.

2. Apparatus of claim 1, wherein said PAC further comprises an instrumentality activation means, for allowing said user to send an instrumentality activation signal to said instrumentality, indicating that said user wishes for said instrumentality to carry out said action.

3. Apparatus of claim 1, wherein said PAC further comprises a user information output means, for allowing output of information from said PAC.

4. Apparatus of claim 1, further comprising a wearing means, for allowing said user to wear said PAC in contact with said user's body.

5. Apparatus of claim 1, wherein said PAC further comprises a personal characteristics sensor means, for sensing unique identifying personal characteristics of said user, and for communicating data representing said characteristics to said data storage means.

6. Apparatus of claim 4, further comprising a communications security means, for reducing risk of any

unauthorized detection and interference with communications between said PAC and said instrumentality.

7. Apparatus of claim 6, wherein said communications security means comprises means for allowing said PAC and said instrumentality to communicate by a path passing entirely through said user's body, with said instrumentality being in contact with said user's body.

8. Apparatus of claim 6, wherein said communications security means comprises encryption of said communications between said PAC and said instrumentality.

9. Apparatus of claim 1, wherein said instrumentality further comprises an authorized person recognition microprocessor comprising said authorized person recognition means.

10. Apparatus of claim 4, wherein said PAC further comprises a removal sensor means, communicating with said wearing means and said data storage means, for sensing removal of said PAC from said body of said authorized person and for communicating a removal signal indicative of said removal into said data storage means; and wherein said authorized person identification means further comprises means for determination of whether any said removal signal has been received into said data storage means after receipt of the most recent data identifying said user as said authorized person.

11. Apparatus of claim 1, wherein said PAC's authorized person identification means further comprises a periodic challenge means, to require periodic reentry by said user, into said user

information input means, of data identifying said user as said authorized person, prior to issuance of any said authorized person identity authentication signal after a time at which said reentry of said data is required by said periodic challenge means.

5 12. Apparatus of claim 1, wherein said communication means comprises a means of wave communication.

13. Apparatus of claim 12, wherein said communication means comprises a means of communication using electromagnetic waves.

10 14. Apparatus of claim 12, wherein said communication means comprises a means of communication using sound waves.

15 15. Apparatus of claim 2, wherein said instrumentality's authorized person recognition means further comprises a means to determine whether any said authorized person identity authentication signal is received from said PAC within a predetermined time interval before or after receipt of said instrumentality activation signal.

16. Apparatus of claim 15, wherein said predetermined time interval is at least substantially equal to 1/10 second.

20 17. Apparatus of claim 1, wherein said instrumentality's authorized person recognition means further comprises means to send an interrogation signal to said PAC after receipt of said instrumentality activation signal, asking for transmission of an authorized person identification authentication signal, and for determining whether said authorized person identity authentication signal is received by said authorized person recognition means

within a predetermined time interval after transmission of said interrogation signal.

18. Apparatus of claim 17, wherein said predetermined time interval is at least substantially equal to 1/10 second.

5 19. Apparatus of claim 4, wherein said wearing means comprises a wrist band, having means for attachment of said PAC to said wrist band, and means for securing said wrist band to a wrist of said authorized person.

10 20. Apparatus of claim 4, wherein said wearing means comprises a garment containing said PAC, said garment having means to hold said PAC against the skin of said authorized person.

21. Apparatus of claim 1, wherein said user information input means comprises a keypad.

15 22. Apparatus of claim 1, wherein said user information input means comprises means to allow said authorized person to communicate by voice with said PAC.

23. Apparatus of claim 5, wherein said personal characteristics sensor means comprises means for acoustic sensing of the voice profile of said user.

20 24. Apparatus of claim 5, wherein said personal characteristics sensor means comprises means for sensing the retinal pattern of an eye of said user.

25 25. Apparatus of claim 5, wherein said personal characteristics sensor means comprises means for sensing the fingerprint pattern of said user.

26. Apparatus of claim 1, wherein said PAC is located in

a phone line between a computer and said instrumentality.

27. Apparatus of claim 1, wherein said PAC is located within a computer.

28. Apparatus of claim 1, wherein said PAC is located 5 within a cellular telephone instrument.

29. Apparatus of claim 2, wherein said instrumentality further comprises means to allow said authorized person to purchase an item at a shelf in a store, comprising means to record said authorized person's decision to purchase said product and to record 10 information as to said authorized person's manner of payment for said product, and to record said authorized person's actual removal of said product from said shelf.

30. Apparatus for allowing only an authorized person to activate an instrumentality capable of performing action desired 15 by a person who is the user of said apparatus, said apparatus comprising:

a Personalized Authenticated Controller means (hereafter "PAC"), communicating with said instrumentality, for authenticating identity of said user as said authorized person and 20 for allowing activation of said instrumentality only by said authorized person for performance of said action, said PAC comprising:

a data storage means, for storing data received by said PAC;

25 a personal characteristics sensor means, for sensing unique identifying personal characteristics of said user, and for

communicating data representing said characteristics to said data storage means; and

5 a PAC microprocessor means, communicating internally with all PAC components, for transferring and formatting data, said PAC microprocessor means further comprising an authorized person identification means, communicating with said data storage means, for determining whether said user is said authorized person, through analysis of the most recently received data identifying said user and through comparison of same with reference data 10 identifying said authorized person; and for providing for output from said PAC, of an authorized person identity authentication signal, if and only if said user is said authorized person;

a communication means, for allowing communication between said PAC and said instrumentality; and

15 a portion of said instrumentality, comprising:

an authorized person recognition means, communicating with said PAC, for allowing said instrumentality to carry out said action sought by said user only upon receipt by said authorized person recognition means, of said authorized person identity 20 authentication signal.

31. Method for allowing only an authorized person to activate an instrumentality capable of performing action desired by a person who is the user of said apparatus, said method comprising the steps of:

25 continually determining whether or not said user is said authorized person; and

allowing said instrumentality to be activated by said user if and only if said user is said authorized person.

32. Method of claim 31, wherein said step of continually determining whether or not said user is said authorized person,
5 comprises the steps of:

continually sensing unique identifying bodily characteristics of said user; and

comparing said bodily characteristics of said user with reference bodily characteristics of said authorized person.

10 33. Method of claim 31, wherein said step of continually determining whether or not said user is said authorized person, comprises the steps of:

periodically requiring said user to provide identifying data allegedly identifying said user as said authorized person; and

15 comparing said identifying data with reference identifying data for said authorized person.

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